

**ABSTRACT****AN OPTICAL FILTER**

The present invention provides an optical filter including a substrate having a plurality of layers of materials stacked upon it each of which layers is formed from one or both of: a first material having a first index of refraction; and, a second material having a second index of refraction being less than the first index of refraction; wherein the plurality of layers of materials include a first layer and a second layer each formed from an inhomogeneous mixture of said first material and said second material; and a third layer formed from the first material being stacked in between the first layer and the second layer; wherein the optical thickness of each of said first and said second layers is greater than the optical thickness of said third layer.

**Fig. 1**